

Claims

- [c1] What is claimed is:
1. A bobbin for an inductor assembly comprising:
a molded body having a first end, a second end, and a single flange centrally disposed between the first and the second ends to maintain a uniform gap between a pair of ferrite cores.
 - [c2] 2. The bobbin of claim 1 wherein the flange includes a pair of ends, each end extending past the molded body.
 - [c3] 3. The bobbin of claim 2 wherein each end of the flange includes a pair of faces, at least one face of each end having an embossed surface.
 - [c4] 4. The bobbin of claim 3 wherein each embossed surface is configured to engage a pole of a ferrite core.
 - [c5] 5. The bobbin of claim 1 wherein the flange has a constant thickness so as to maintain the uniform gap between the pair of ferrite cores.
 - [c6] 6. The bobbin of claim 1 further comprising a protrusion configured to engage a spring clip for securing the pair of ferrite cores to the molded body.
 - [c7] 7. The bobbin of claim 1 further comprising a number of hollow bosses, each hollow boss configured to receive a threaded fastener for mounting the molded body to a mounting plate.
 - [c8] 8. The bobbin of claim 1 wherein the flange is configured to bisect the molded body.
 - [c9] 9. An inductor assembly comprising:
a pair of ferrite cores;
a plastic bobbin, the bobbin having an embossed flange to maintain a constant gap between the pair of ferrite cores; and
a pair of securing devices to secure the pair of ferrite cores to the plastic bobbin.
 - [c10] 10. The inductor assembly of claim 9 wherein the pair of securing devices

includes a pair of spring clips, each spring clip designed to engage a molded protrusion on the bobbin to secure the ferrite cores to the bobbin.

- [c11] 11. The inductor assembly of claim 10 wherein the spring clips are formed of brass to minimize any eddy current heating.
- [c12] 12. The inductor assembly of claim 9 wherein the ferrite cores have an E-shape.
- [c13] 13. The inductor assembly of claim 9 wherein each core has a pole piece and the flange maintains the uniform gap between outer poles of the ferrite cores.
- [c14] 14. The inductor assembly of claim 9 wherein the bobbin includes a number of hollow bosses, each hollow boss configured to receive a screw to mount the inductor assembly to a bracket.
- [c15] 15. The inductor assembly of claim 9 incorporated into a welding-type device.
- [c16] 16. A kit for retrofitting an inductor assembly of a welding-type device, the kit comprising:
 - a pair of ferrite cores;
 - a molded bobbin having a centrally positioned flange configured to engage opposing faces of the pair of ferrite cores so as to maintain a uniform separation between the pair of ferrite cores; and
 - a pair of spring clips to secure the pair of ferrite cores to the molded bobbin.
- [c17] 17. The kit of claim 16 wherein the molded bobbin includes hollow bosses for receiving threaded fasteners to secure the molded bobbin to a mounting plate.
- [c18] 18. The kit of claim 16 wherein the securing devices are formed of a brass material.
- [c19] 19. The kit of claim 16 wherein the securing devices are configured to be oriented perpendicular to the molded bobbin.
- [c20] 20. The kit of claim 16 wherein the bobbin includes a molded body and the flange includes a pair of ends, each end extending past the molded body and having at least one embossed surface configured to engage a portion of a ferrite core so as to maintain the uniform separation between the pair of ferrite cores.